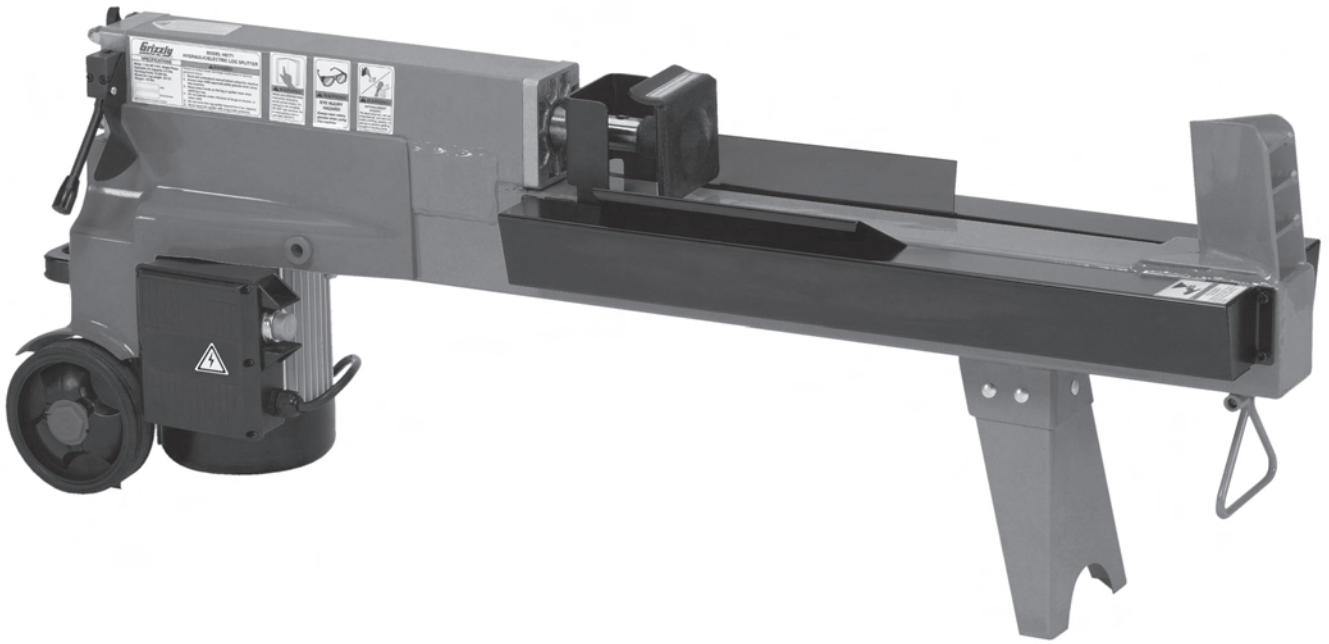
MODEL H8170/H8171
HYDRAULIC/ELECTRIC
LOG SPLITTER
OWNER'S MANUAL



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⚠ WARNING!

This manual provides critical safety instructions on the proper setup, operation, maintenance and service of this machine/equipment.

Failure to read, understand and follow the instructions given in this manual may result in serious personal injury, including amputation, electrocution or death.

The owner of this machine/equipment is solely responsible for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training and usage authorization, proper inspection and maintenance, manual availability and comprehension, application of safety devices, blade/cutter integrity, and the usage of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.

⚠ WARNING!

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- **Lead from lead-based paints.**
- **Crystalline silica from bricks, cement and other masonry products.**
- **Arsenic and chromium from chemically-treated lumber.**

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: Work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

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INTRODUCTION

Foreword

We are proud to offer the Model H8170/H8171 Hydraulic/Electric Log Splitter. This machine is part of a growing Grizzly family of fine household equipment. When used according to the guidelines set forth in this manual, you can expect years of trouble-free, enjoyable operation and proof of Grizzly's commitment to customer satisfaction.

The specifications, drawings, and photographs illustrated in this manual represent the Model H8170/H8171 when the manual was prepared. However, owing to Grizzly's policy of continuous improvement, changes may be made at any time with no obligation on the part of Grizzly.

For your convenience, we always keep current Grizzly manuals available on our website at **www.grizzly.com**. Any updates to your machine will be reflected in these manuals as soon as they are complete. Visit our site often to check for the latest updates to this manual!

Contact Info

If you have any comments regarding this manual, please write to us at the address below:

Grizzly Industrial, Inc.
C/O Technical Documentation Manager
P.O. Box 2069
Bellingham, WA 98227-2069
Email: manuals@grizzly.com

We stand behind our machines. If you have any service questions or parts requests, please call or write us at the location listed below.

Grizzly Industrial, Inc.
1203 Lycoming Mall Circle
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Phone: (570) 546-9663
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Grizzly Industrial, Inc.®

MACHINE DATA SHEET

Customer Service #: (570) 546-9663 • To Order Call: (800) 523-4777 • Fax #: (800) 438-5901

MODEL H8170/H8171 HYDRAULIC/ELECTRIC LOG SPLITTER

Motor:
- Type ..... TEFC Capacitor Start Induction
- Horsepower ..... 1-3/4 HP
- Voltage 110V
- Cycle 60Hz
- Amps ..... 13 A

Dimensions (Length) x Width x Height)**:**
- H8170 ..... 37 x 10¼ x 19 in.
- H8171 ..... 47¼ x 10¼ x 19 in.

Net Weight:
- H8170 ..... 99 lbs.
- H8171 ..... 110 lbs.

Hydraulic Oil Capacity:
- H8170 ..... 1.7 Qts.
- H8171 ..... 2.5 Qts.

Hydraulic Oil Type: ..... SHELL Tellus 22
..... MOBIL DTE 11
..... ARAL Vitam GF 22
..... BP Energol HLP-HM 22

Splitting Force: ..... 10,000 lbs.

Maximum Log Length:
- H8170 ..... 14½ in.
- H8171 ..... 20½ in.

Log Splitting Diameter (Appx.)**:** ..... 2–10 in.

(The actual maximum and minimum splitting diameter for a particular log will depend on wood species, grain characteristics and moisture content.)

Identification

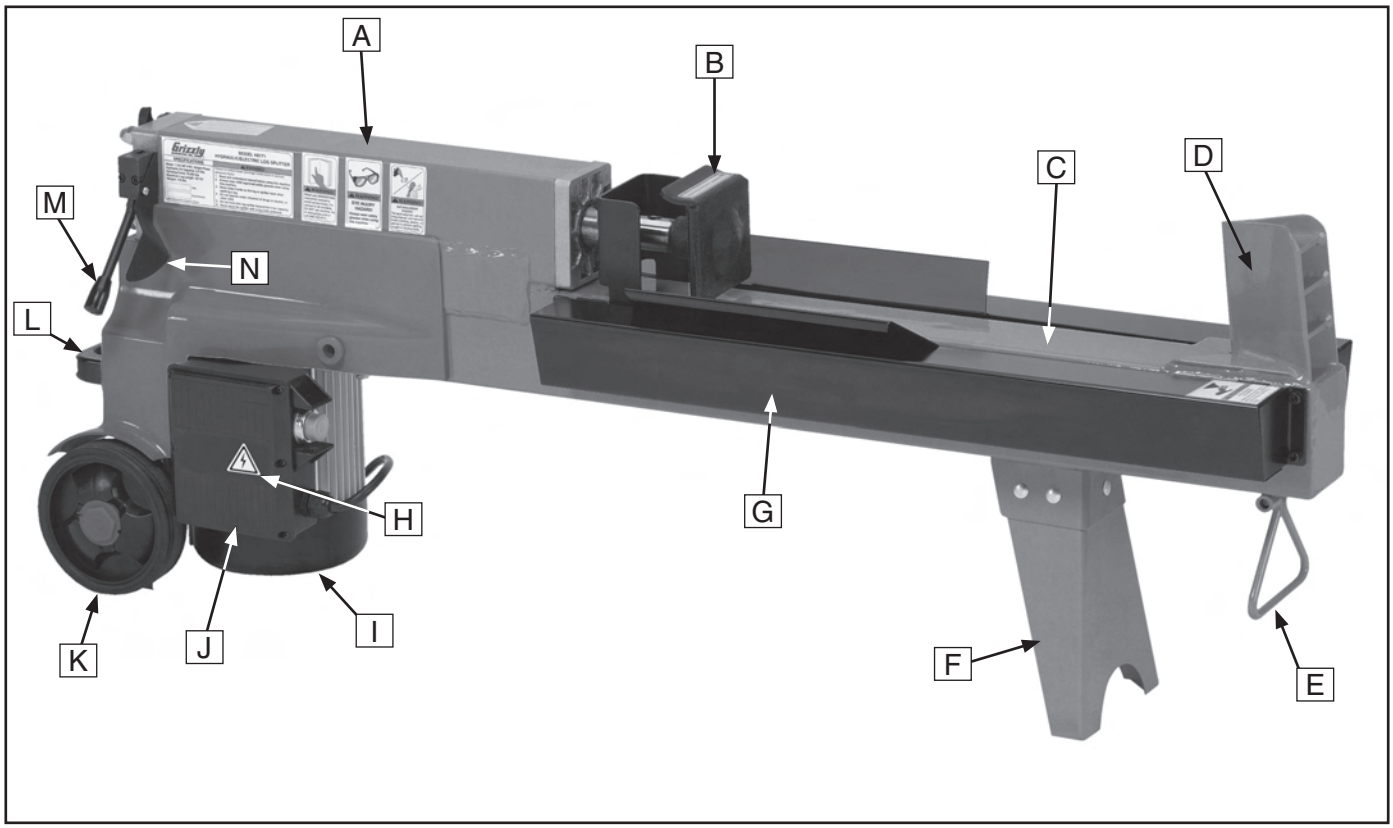


Figure 1. H8170/H8171 identification front view.

A. Oil Tank
B. Log Pusher
C. Log Table
D. Splitting Wedge
E. Front Lifting Handle
F. Support Leg
G. Log Table Extension
H. Power Switch
I. Motor
J. Wiring Box
K. Wheel
L. Rear Lifting Handle
M. Hydraulic Control Lever
N. Hydraulic Lever Guard
O. Hydraulic Air Bleed Screw
P. Oil Drain Bolt with Dipstick.

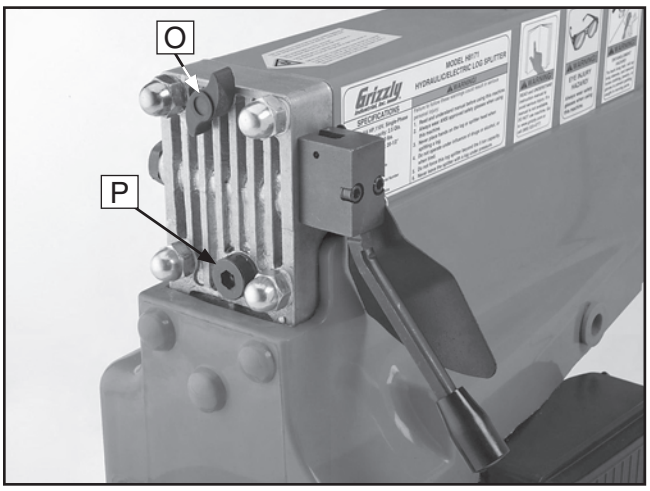


Figure 2. Identification end view.

SECTION 1: SAFETY

⚠WARNING

For Your Own Safety, Read Instruction Manual Before Operating this Machine

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures.

⚠DANGER **Indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.**

⚠WARNING **Indicates a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.**

⚠CAUTION **Indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury. It may also be used to alert against unsafe practices.**

NOTICE **This symbol is used to alert the user to useful information about proper operation of the machine.**

⚠WARNING

Safety Instructions for Machinery

1. **READ THE ENTIRE MANUAL BEFORE STARTING MACHINERY.** Machinery presents serious injury hazards to untrained users.
2. **ALWAYS USE ANSI APPROVED SAFETY GLASSES WHEN OPERATING MACHINERY.** Everyday eyeglasses only have impact resistant lenses—they are NOT safety glasses.
3. **ALWAYS WEAR A NIOSH APPROVED RESPIRATOR WHEN OPERATING MACHINERY THAT PRODUCES DUST.** Wood dust can cause severe respiratory illnesses.
4. **ALWAYS USE HEARING PROTECTION WHEN OPERATING MACHINERY.** Machinery noise can cause permanent hearing loss.
5. **WEAR PROPER APPAREL.** DO NOT wear loose clothing, gloves, neckties, rings, or jewelry that can catch in moving parts. Wear protective hair covering to contain long hair and wear non-slip footwear.
6. **NEVER OPERATE MACHINERY WHEN TIRED OR UNDER THE INFLUENCE OF DRUGS OR ALCOHOL.** Be mentally alert at all times when running machinery.

⚠WARNING
Safety Instructions for Machinery

7. **ONLY ALLOW TRAINED AND PROPERLY SUPERVISED PERSONNEL TO OPERATE MACHINERY.** Make sure operation instructions are safe and clearly understood.

8. **KEEP CHILDREN AND VISITORS AWAY.** Keep all children and visitors a safe distance from the work area.

9. **MAKE WORKSHOP CHILDPROOF.** Use padlocks, master switches, and remove start switch keys.

10. **NEVER LEAVE WHEN MACHINE IS RUNNING.** Turn power ***OFF*** and allow all moving parts to come to a complete stop before leaving machine unattended.

11. **DO NOT USE IN DANGEROUS ENVIRONMENTS.** DO NOT use machinery in damp, wet locations, or where any flammable or noxious fumes may exist.

12. **KEEP WORK AREA CLEAN AND WELL LIGHTED.** Clutter and dark shadows may cause accidents.

13. **USE A GROUNDED EXTENSION CORD RATED FOR THE MACHINE AMPERAGE.** Grounded cords minimize shock hazards. Undersized cords create excessive heat. Always replace damaged extension cords.

14. **ALWAYS DISCONNECT FROM POWER SOURCE BEFORE SERVICING MACHINERY**. Make sure switch is in OFF position before reconnecting.

15. **MAINTAIN MACHINERY WITH CARE.** Keep blades sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

16. **MAKE SURE GUARDS ARE IN PLACE AND WORK CORRECTLY BEFORE USING MACHINERY.**

17. **REMOVE ADJUSTING KEYS AND WRENCHES.** Make a habit of checking for keys and adjusting wrenches before turning machinery ***ON***.

18. **CHECK FOR DAMAGED PARTS BEFORE USING MACHINERY.** Check for binding or misaligned parts, broken parts, loose bolts, and any other conditions that may impair machine operation. Repair or replace damaged parts before operation.

19. **USE RECOMMENDED ACCESSORIES.** Refer to the instruction manual for recommended accessories. Improper accessories increase risk of injury.

20. **DO NOT FORCE MACHINERY.** Work at the speed for which the machine or accessory was designed.

21. **SECURE WORKPIECE.** Use clamps or a vise to hold the workpiece when practical. A secured workpiece protects your hands and frees both hands to operate the machine.

22. **DO NOT OVERREACH.** Maintain stability and balance at all times.

23. **MANY MACHINES CAN EJECT WORKPIECES TOWARD OPERATOR.** Know and avoid conditions that cause the workpiece to "kickback."

24. **ALWAYS LOCK MOBILE BASES (IF USED) BEFORE OPERATING MACHINERY**.

25. **CERTAIN DUST MAY BE HAZARDOUS** to the respiratory systems of people and animals, especially fine dust. Be aware of the type of dust you are exposed to and always wear a respirator designed to filter that type of dust.

⚠WARNING

Additional Safety Instructions for Hydraulic Log Splitters

1. **DO NOT ATTEMPT TO CHANGE THE MAXIMUM PRESSURE SETTING ON THIS LOG SPLITTER.** Adjusting the pressure limit screw may cause a hydraulic explosion and seriously injure the operator and bystanders.

2. **BE FAMILIAR WITH THE HAZARDS OF HYDRAULIC INJECTION INJURIES.** Leaking hydraulic fluid may be under sufficient pressure to penetrate skin. Hydraulic fluid injected into skin is a medical emergency and may, if not treated promptly, result in infection, disability, or death.

3. **NEVER USE HANDS TO CHECK FOR HYDRAULIC LEAKS.** Always wear gloves when operating hydraulic equipment.

4. **PROTECT EYES WHEN WORKING AROUND HYDRAULIC EQUIPENT.** Safety glasses may not be sufficient to protect your eyes from hot pressurized fluid. Stay away from leaks until the system is depressurized.

5. **STOP THE MACHINE IMMEDIATELY IF IT LEAKS HYDRAULIC FLUID.** Allowing the machine to run with a leak significantly increases the risk of injury.

6. **NEVER FORCE HYDRAULIC EQUIPMENT TO APPLY MORE PRESSURE THAN IT IS DESIGNED TO EXERT.** Pushing hydraulic equipment beyond the limitations of design can easily damage hydraulic systems and increase the risk of operator injury.

7. **REGULARLY CHECK THE HYDRAULIC FLUID LEVEL AND ADD FLUID WHEN NEEDED.**

8. **NEVER USE THE LOG SPLITTER FOR ANY PURPOSE OTHER THAN SPLITTING WOOD.**

9. **NEVER ALLOW OTHERS TO ASSIST THE OPERATOR IN LOADING OR SPLITTING LOGS.**

10. **KEEP CHILDREN AWAY FROM THE LOG SPLITTER AT ALL TIMES! IT IS NOT A TOY.**

11. **NEVER LEAVE THE SPLITTER UNATTENDED AND ALWAYS STORE IT IN A LOCKED LOCATION WHEN IT IS NOT IN USE.**

12. **FOLLOW THE INSTRUCTIONS IN THIS MANUAL TO RELEASE LOGS THAT BECOME JAMMED ON THE SPLITTING HEAD.** Be aware that logs with high moisture content will be more difficult to split and more likely to jam.

13. **BE AWARE THAT LOGS WITH EXTENSIVE KNOTTING MAY BE DIFFICULT OR IMPOSSIBLE TO SPLIT.** Making repeated attempts to split an unsuitable log will increase wear on the splitter and increase the risk of operator injury.

14. **NEVER ATTEMPT TO SPLIT MORE THAN ONE LOG AT A TIME.** Doing so may cause logs to fly off the splitter with great force, resulting in serious injury or death.

15. **NEVER USE ANY PART OF YOUR BODY TO GUIDE OR STEADY A LOG WHEN THE RAM IS MOVING.** Failure to follow this instruction can result in serious personal injury, including loss of limbs.

SECTION 2: CIRCUIT REQUIREMENTS

110V Operation

⚠WARNING

Serious personal injury could occur if you connect the machine to the power source before you have completed the set up process. DO NOT connect the machine to the power source until instructed to do so.

Amperage Draw

The Model H8170/H8171 motor draws the following amps under maximum load:

Motor Draw ..... 13 Amps

Circuit Recommendations

We recommend connecting your machine to a dedicated and grounded circuit that is rated for the amperage given below. Never replace a circuit breaker on an existing circuit with one of higher amperage without consulting a qualified electrician to ensure compliance with wiring codes. **If you are unsure about the wiring codes in your area or you plan to connect your machine to a shared circuit, consult a qualified electrician.**

110V Circuit ..... 20 Amps

Plug/Receptacle Type

Included Plug Type ..... NEMA 5-15

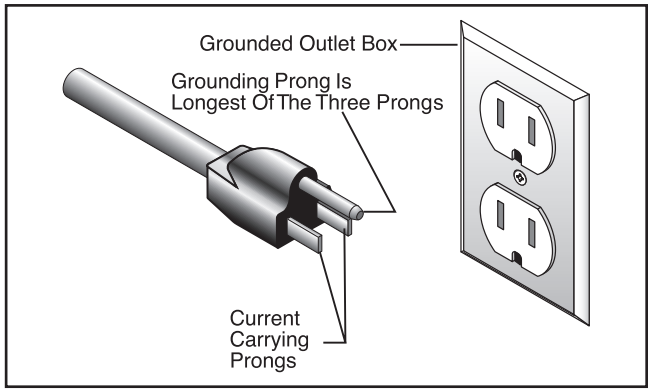
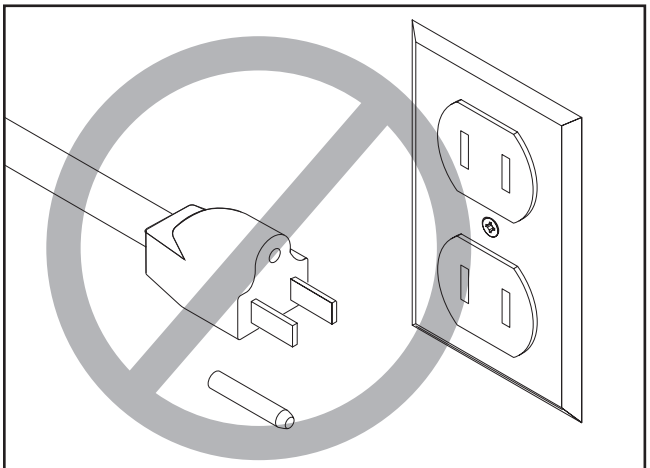


Figure 3. Typical type 5-15 plug and receptacle.

⚠WARNING

Electrocution or fire could result if this machine is not grounded correctly or if your electrical configuration does not comply with local and state codes. Ensure compliance by checking with a qualified electrician!



⚠CAUTION

This machine must have a ground prong in the plug to help ensure that it is grounded. DO NOT remove ground prong from plug to fit into a two-pronged outlet! If the plug will not fit the outlet, have the proper outlet installed by a qualified electrician.

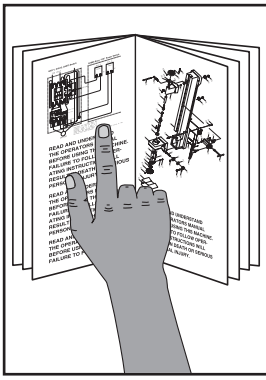
Extension Cords

Follow these instructions when using an extension cord with your log splitter:

- Use at least a 12 gauge cord that does not exceed 50 feet in length!
- The cord must have a ground wire and plug pin; always keep the cord and plug dry.
- A qualified electrician MUST size cords over 50 feet long to prevent motor damage.

SECTION 3: SETUP

SetUp Safety



⚠WARNING

This machine presents serious injury hazards to untrained users. Read through this entire manual to become familiar with the controls and operations before starting the machine!

⚠WARNING

Wear safety glasses during the entire setup process!

⚠WARNING

Wear gloves during the entire setup process and during operations!

⚠WARNING

This log splitter is heavy. Get help whenever moving the log splitter between worksites and lifting it to an elevated work surface.

Items Needed for Setup

The following items are needed to complete the setup process, but are not included with your machine:

Description	Qty
• Lifting Assistance	As needed
• Wrench 14mm	1
• Safety Glasses	1 pr. for each person
• Gloves	1 pr. for each person

Unpacking

Your machine was carefully packaged for safe transportation. Remove the packaging materials from around your machine and inspect it. If you discover the machine is damaged, *please immediately call Customer Service at (570) 546-9663 for advice.*

Save the containers and all packing materials for possible inspection by the carrier or its agent. *Otherwise, filing a freight claim can be difficult.*

When you are completely satisfied with the condition of your shipment, inventory the contents.

Inventory

After all the parts have been removed from the shipping box you should have the following items:

Box Contents (Figure 4):	Qty
A. Log Splitter Body	1
B. Support Leg	1
C. Hardware Bag (Not Shown)	1
— Carriage Bolts M8-1.25 x 10	5
— Hex Nuts M8-1.25	5

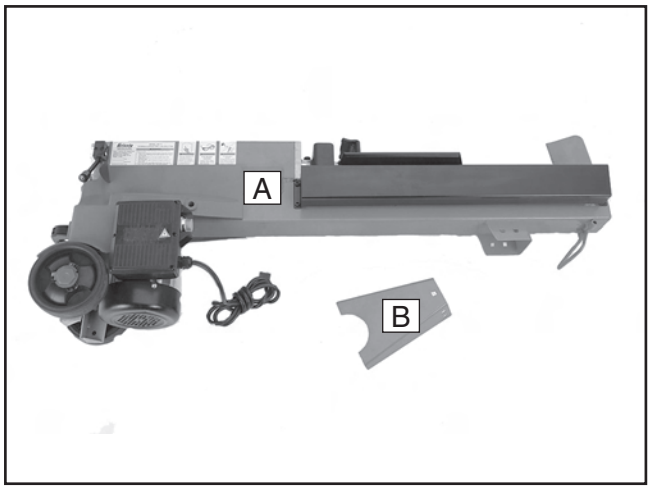


Figure 4. H8170/H8171 Inventory.

If any nonproprietary parts are missing (e.g. a nut or a washer), we will gladly replace them; or for the sake of expediency, replacements can be obtained at your local hardware store.

NOTICE

Some hardware/fasteners on the inventory list may arrive pre-installed. Check mounting locations before assuming that any items from the inventory list are missing.

Site Considerations

Work Surface

Always use the splitter on a flat, stable work surface. Operating your splitter will be easiest when the controls are waist high. At minimum, your work surface must safely support the combined weight of splitter and the heaviest log you intend to split.

Working Clearances

Allow enough room on all sides to move logs to and from the splitter. Refer to the **Machine Data Sheet** for the dimensions of your splitter.

Moving the Splitter

The wheels on the Model H8170/H8171 make it possible for one person to move it short distances. However, the rugged design of your splitter makes it heavy; we recommend that you get assistance whenever lifting it.

To move the splitter :

1. DISCONNECT THE LOG SPLITTER FROM THE POWER SUPPLY!

2. Close the air bleeder screw by turning it clockwise (viewed from the rear of the splitter) until it stops. This will prevent hydraulic fluid from leaking out during the move.

3. Grab the front handle and lift until the wheels carry the load of the rear end. You will need to raise the front end about 15" to shift the load to the wheels. Roll the splitter to the desired location and lower the front end.

4. Open the air bleeder screw by turning it clockwise two full turns.

To lift the splitter:

1. Do **Steps 1–2**, above.

2. Get an assistant to help you to lift the splitter and carry it to the new worksite; use the handles at each end.

Assembly

The only assembly required is attaching the support leg to the splitter assembly.

Components and Hardware Needed:	**Qty**
Carriage Bolts M8-1.25 x 10	5
Hex Nut M8-1.25	5

To attach the support leg:

1. Carefully lay the splitter on its side, with the wiring box facing up.

2. Use the carriage bolts and nuts to secure the support leg to the splitter body as shown in **Figure 5**.

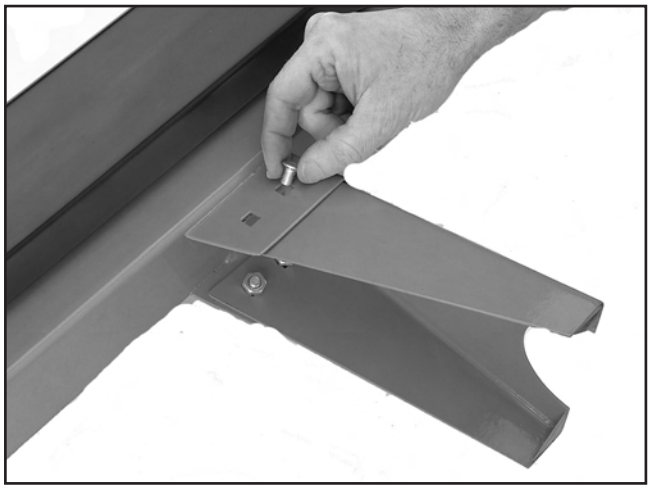


Figure 5. Attaching the support leg.

Test Run

Before you begin operations, do **Steps 1–5** below to make sure your splitter is running properly.

To test run the log splitter:

1. Make sure that all tools and other materials are cleared away from the machine.

2. Review **SECTIONS 1 and 2** (**SAFETY and CIRCUIT REQUIREMENTS**) on **Pages 15-8** and connect your machine to the power source.

3. Turn the air bleed screw clockwise (as you face the rear of the splitter) until it stops, then turn it counterclockwise two full turns.

4. Press the ON button in and, while holding it down, push the hydraulic control lever down. The ram should move forward, stopping about 8⅜" from the splitting wedge.

Note: *For your safety, both the ON button and the hydraulic lever must be engaged to start the ram moving forward.*

5. When the ram stops moving forward, release both ON button and the control lever. The motor will stop running and the ram will slide back to the start position.

—If the ram moves as described in **Steps 4–5**, then the splitter is working properly and the test run is complete.

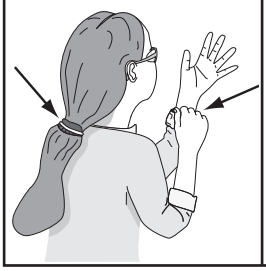
—If the ram does not operate as described, or if the splitter vibrates excessively or makes unusual noises, stop using the splitter immediately, disconnect the splitter from the power supply and refer to **Troubleshooting** on **Page 17** If you still cannot resolve the problem, contact our Technical Support at (570) 546-9663.

SECTION 4: OPERATIONS

Operation Safety

⚠WARNING

Damage to your eyes, lungs, and ears could result from using this machine without proper protective gear. Always wear safety glasses, a respirator, and hearing protection when operating this machine.



⚠WARNING

Loose hair and clothing could get caught in machinery and cause serious personal injury. Keep loose clothing and long hair away from moving machinery.

⚠WARNING

Always wear gloves when operating this log splitter!

NOTICE

If you have never used this type of machine or equipment before, WE STRONGLY RECOMMEND that you read books, trade magazines, or get formal training before beginning any projects. Regardless of the content in this section, Grizzly Industrial will not be held liable for accidents caused by lack of training.

Overview

When you press the ON button, the electric motor pressurizes hydraulic fluid. When you push the control lever down, the pressurized fluid moves the pusher forward, pressing the log into the splitting wedge.

To operate the splitter you must use both hands to activate the controls simultaneiously. See **Figure 6** for the position of the controls and hands during operation.

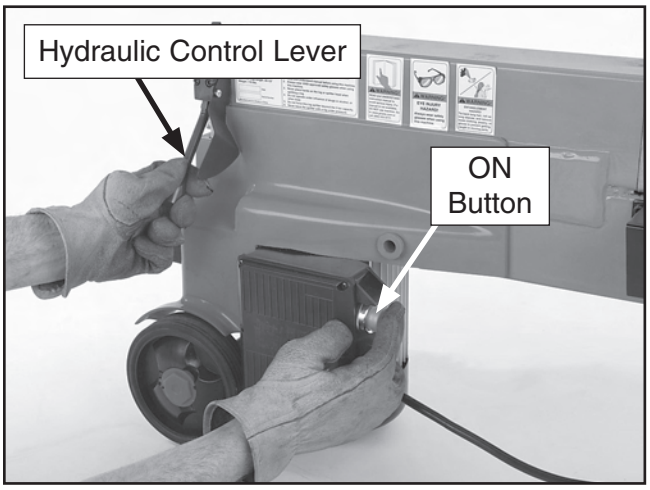


Figure 6. Operating the basic controls.

Basic Operations

Locate the splitter as close as possible to the logs you will split. Refer to **CIRCUIT REQUIREMENTS**, on **Page 8** for the maximum length of extension cords.

To split a log:

1. Make sure the bleeder screw is open by first turning it clockwise until it stops and then turning it counterclockwise two full turns.

2. Place the log squarely on the bed as shown in **Figure 7**. DO NOT try to split a log against the grain by laying it sideways on the bed.

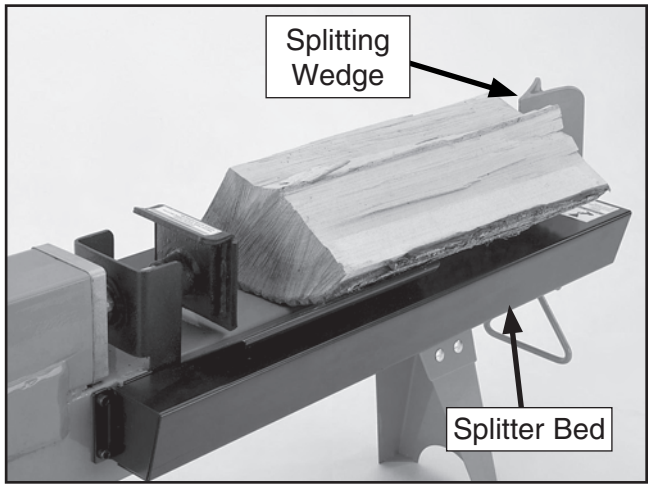


Figure 7. Placing a log on the splitter bed.

3. With your body and clothing away from log and the hydraulic ram, depress and hold the *ON* button, then push the control lever down. Keep pressing the ON button while holding the control arm down; the ram will push the log into the splitting head. When the ram stops, immediatley release both the ON button and control arm.

   Note: *The hydraulic system will be damaged if you try to force the ram forward by holding the controls in the* ON *position after the ram stops.*

4. Clear the pieces of split wood away from the splitter.

Removing a Jammed Log

If a log does not split and becomes jammed on the splitting wedge, DO NOT try to clear it by hitting it from the side or kicking it; this can result in personal injury and damage the splitter.

To safely remove a jammed log:

1. With the ram fully back, set a wooden wedge flat side down on the bed with the narrow end pointing under the log as shown in **Figure 8**.

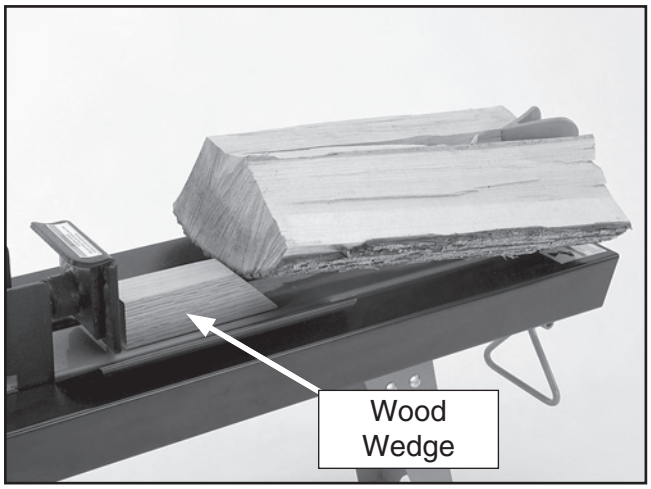


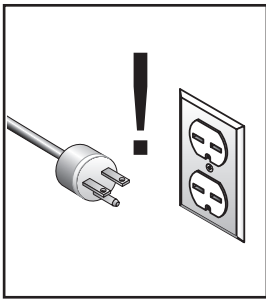
Figure 8. Using a wedge to clear a jam.

   Note: *A piece of split wood set crossways on the bed may make a good wedge, but it must narrow enough to slide under the end of the jammed log.*

2. Start the splitter to push the wedge under the jammed log until the log lifts off the splitting head.

   Note: *If the first wedge does not free the log, repeat the process using wedges with steeper slopes until the log is free.*

SECTION 5: MAINTENANCE



⚠WARNING

Always disconnect power to the machine before performing maintenance. Failure to do this may result in serious personal injury.

Cleaning

For optimum performance from your log splitter, clean it with a brush after every use and wipe it down occasionally with a rag. To prevent rusting, dry the log splitter thoroughly after every use.

Schedule

Follow the maintenance schedule below and refer to any specific instructions given in this section.

Before each use, check for:
- Low hydraulic fluid level.
- Loose hardware.
- Leaking hydraulic fluid.
- Any other unsafe or abnormal condition.

Every 150 hours of use:
- Replace old hydraulic fluid with new.

As needed:
- Remove rust from the splitting wedge and apply rust-preventative touch-up paint to bare surfaces.

Checking/Adding Hydraulic Fluid

The oil fill plug on the Model H8170/H8171 has a dipstick attached. The fill plug is located under the bleed screw on the back of the splitter.

To check the fluid level:

1. Use the front lifting handle to raise the splitter to a vertical position, motor end up. Make sure the ram is fully retracted and have an assistant hold the splitter steady.

2. Use a hex wrench to remove the fill plug/dipstick, as shown in **Figure 9**.

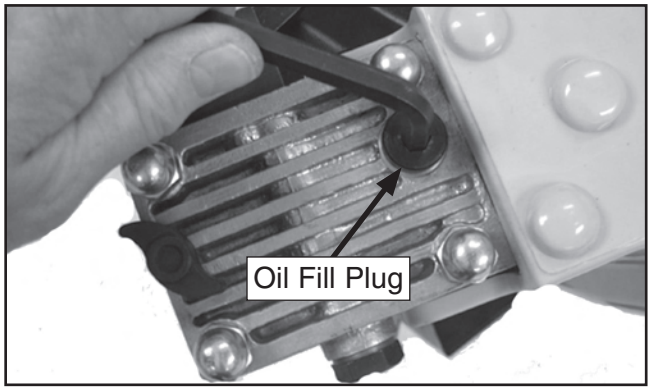


Figure 9. Removing the oil fill plug.

3. Wipe off the dipstick and use it to check the oil level as shown in **Figure 10**.

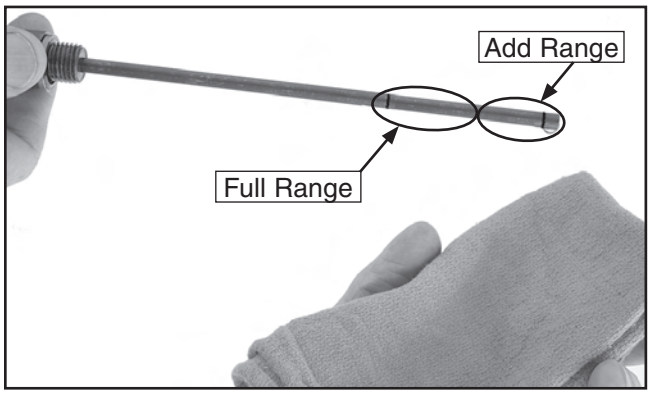


Figure 10. Checking the fluid level.

—If the oil level is at least halfway between the two grooves, no additional oil is needed –wipe the dipstick clean, return the plug, and tighten it.

—If the oil level is close to the lower mark, add fluid through the oil plug hole until the level is at the top line, then tighten the fill plug.

Changing the Hydraulic Fluid

Change the hydraulic fluid after each 150 hours of operation. See the **Machine Data Sheet** for fluid requirements and capacities of your model. Failure to follow tthese instructions may damage your machine and cause serious personal injury.

⚠WARNING
Always wear protective gloves when changing hydraulic fluid.

⚠WARNING
Always wear safety goggles when the changing hydraulic fluid.

To change the hydraulic fluid:

1. DISCONNECT THE SPLITTER FROM THE POWER SOURCE!

2. With the help of an assistant, tip the splitter back, motor end down, and place a basin under the fill plug to catch the oil as shown in **Figure 11**.

Figure 11. Draining hydraulic fluid.

3. Remove the oil fill plug. As the fluid drains into the basin, loosen the bleeder screw two full turns.

4. While holding a clean rag over the fill opening, tip the splitter upright, motor end up. Have your assistant hold it steady.

5 Pour new oil into the fill plug hole. Check the fluid level frequently as you add oil. Fill to until the oil level is between the two grooves on the dipstick, then replace the fill plug and tighten.

Note: *Remember to fully tighten the fill plug before removing it to check the fluid level. If you do not, you run the risk of over-filling, which can result in machine damage.*

Sharpening the Splitting Wedge

⚠WARNING
Always wear protective, gloves when sharpening the splitting wedge.

During the life of your log splitter, you will need to sharpen the splitting wedge perodically. When sharpening the wedge,m keep in mind that if you try and keep the wedge sharpened to a razor point (like an axe blade), you will greatly reduce the life of the wedge by always sharpening it. However, if you allow the point to become very dull or bullnosed, your log splitter will have to overwork to split logs and wear out. The optimum point is somewhere between. Refer to **Figure 12** for a general idea.

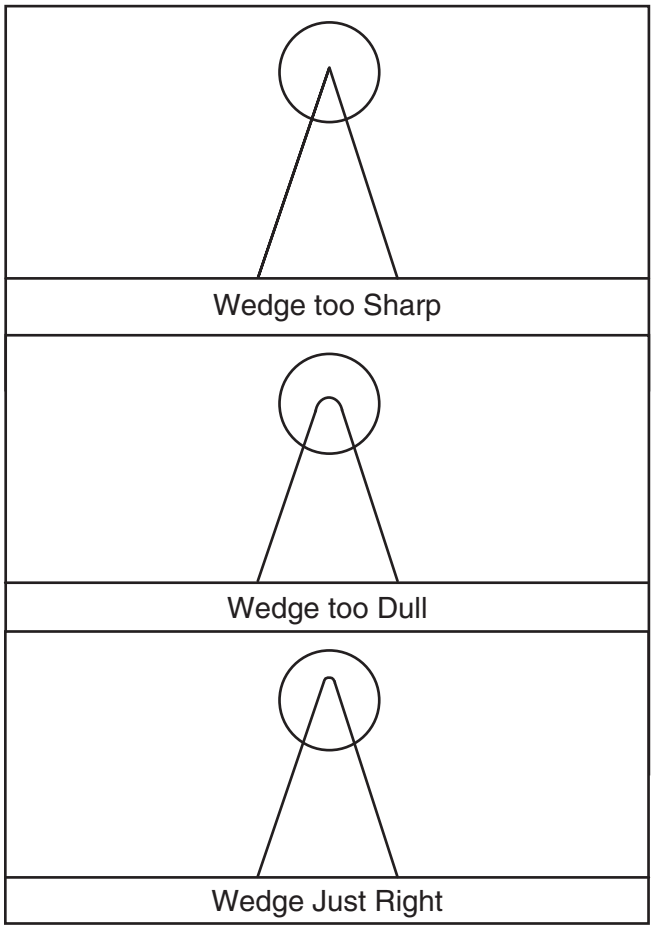
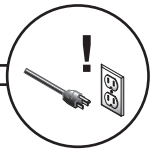


Figure 12. Wedge points.

SECTION 6: SERVICE

Review the troubleshooting and procedures in this section to fix or adjust your machine if a problem develops. If you need replacement parts or you are unsure of your repair skills, then feel free to call our Technical Support at (570) 546-9663.

Troubleshooting



Operation

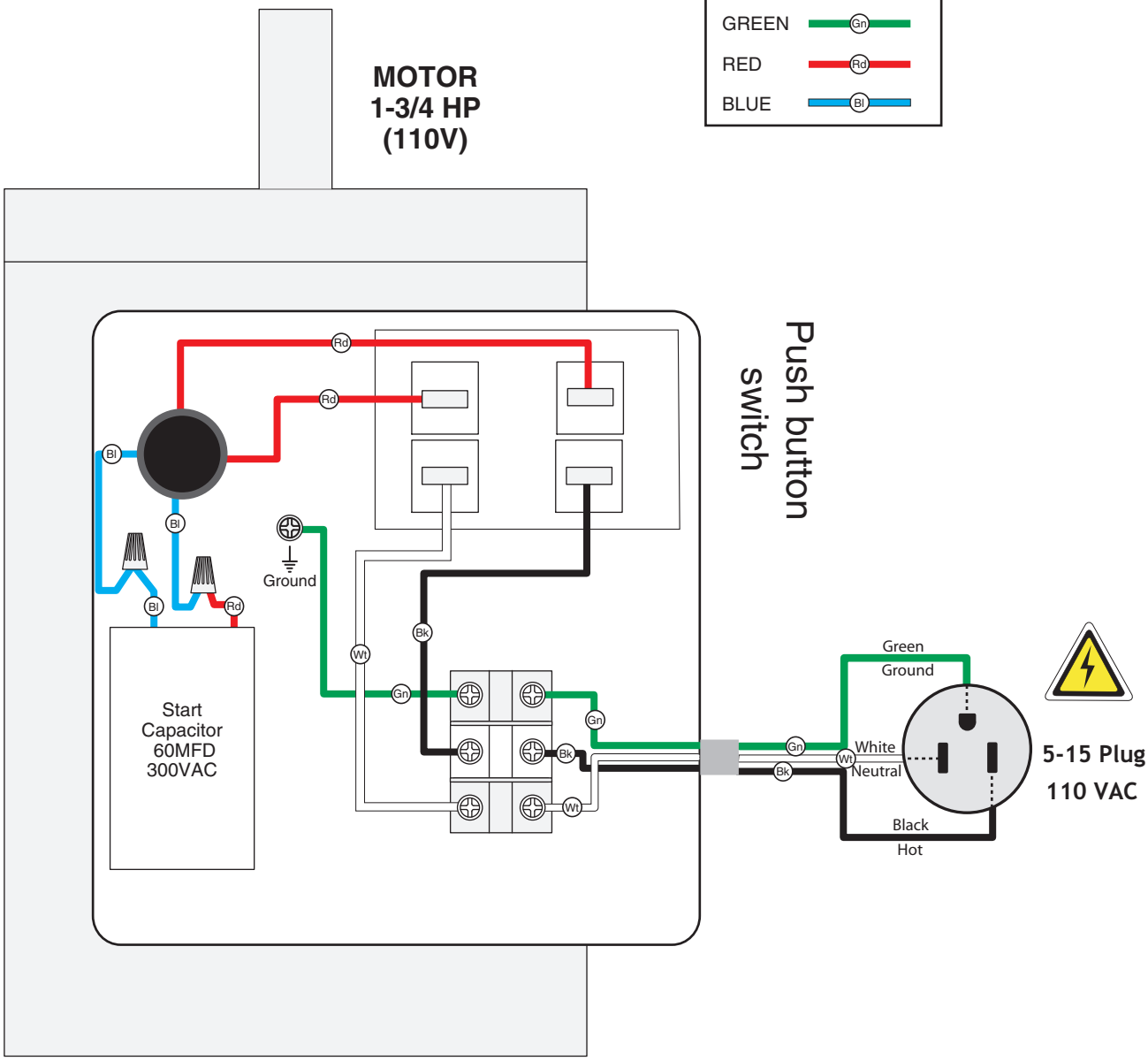
Symptom	Possible Cause	Possible Solution
Machine does not start or a breaker trips.	1. Plug/receptacle is at fault or wired incorrectly. 2. Power supply is at fault/switched OFF. 3. Motor ON/OFF switch is at fault. 4. Wiring is open/has high resistance. 5. Start capacitor faulty. 6. Motor is at fault.	1. Test for good contacts; correct the wiring. 2. Ensure hot lines have correct voltage on all legs and main power supply is switched ON. 3. Replace faulty ON/OFF switch. 4. Check for broken wires or disconnected/corroded connections, and repair/replace as necessary. 5. Test/repair/replace. 6. Test/repair/replace.
Machine stalls or is underpowered.	1. Plug/receptacle is at fault. 2. Excessively long extension cord. 3. Motor bearings are at fault. 4. Machine is undersized for the task. 5. Motor has overheated. 6. Motor is at fault.	1. Test for good contacts; correct the wiring. 2. Move splitter closer to the power supply. 3. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement. 4. Stop operation. 5. Clean off motor, let cool, and reduce workload. 6. Test/repair/replace.
Machine has vibration or noisy operation.	1. Motor or component is loose. 2. Motor fan is rubbing on fan cover. 3. Dirt in motor fan enclosure	1. Inspect/replace stripped or damaged bolts/nuts, and re-tighten with thread locking fluid. 2. Replace dented fan cover; replace loose/damaged fan. 3. Clean, reassemble.
Electric motor operating properly but the hydraulic ram won't split logs.	1. Bleeder screw closed. 2. Hydraulic fluid low. 3. Hydraulic system damaged or fluid is leaking out.	1. Open screw two full turns. 2. Check fluid level, add fluid. 3. Repair/replace damaged parts.
Ram works, but logs are hard to split.	1. Log unsuitable: twisted grain, high moisture content, heavily knotted. 2. Splitting wedge is dull. 3. Splitting wedge is damaged.	1. Don't attempt to split unsuitable logs. 2. Sharpen wedge. 3. Stop operations/repair wedge.
Ram does not retract properly.	1. Debris lodged in the ram return path or in the return springs. 2. Damaged seals in hydraulic system.	1. Clear debris. 2. Repair/replace damaged parts.

H8170/H8171 Wiring Diagram

View this page in color at *www.grizzly.com.*

COLOR KEY

BLACK	Bk
WHITE	Wt
GREEN	Gn
RED	Rd
BLUE	Bl



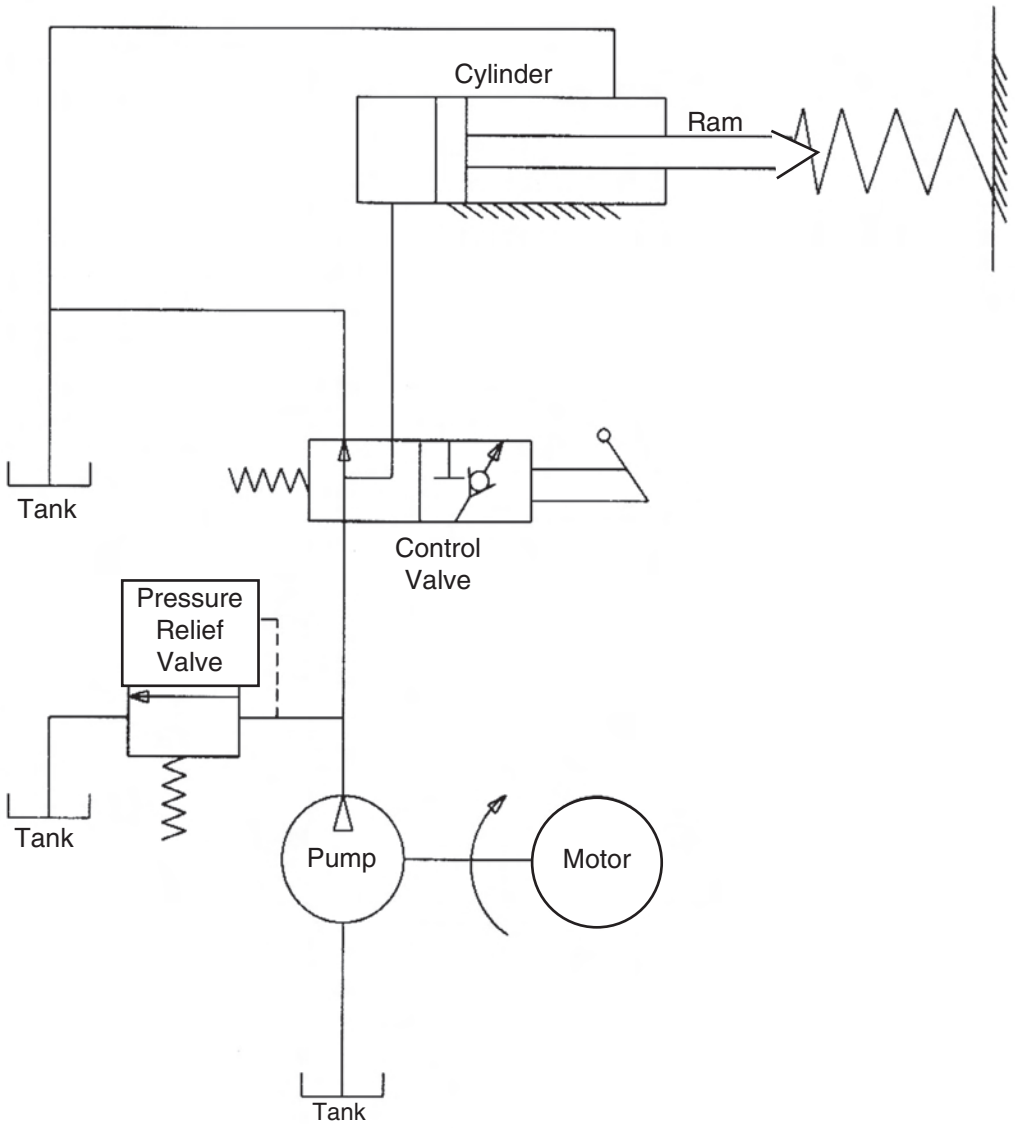
H8170/H8171 Hydraulic System Schematic

⚠WARNING

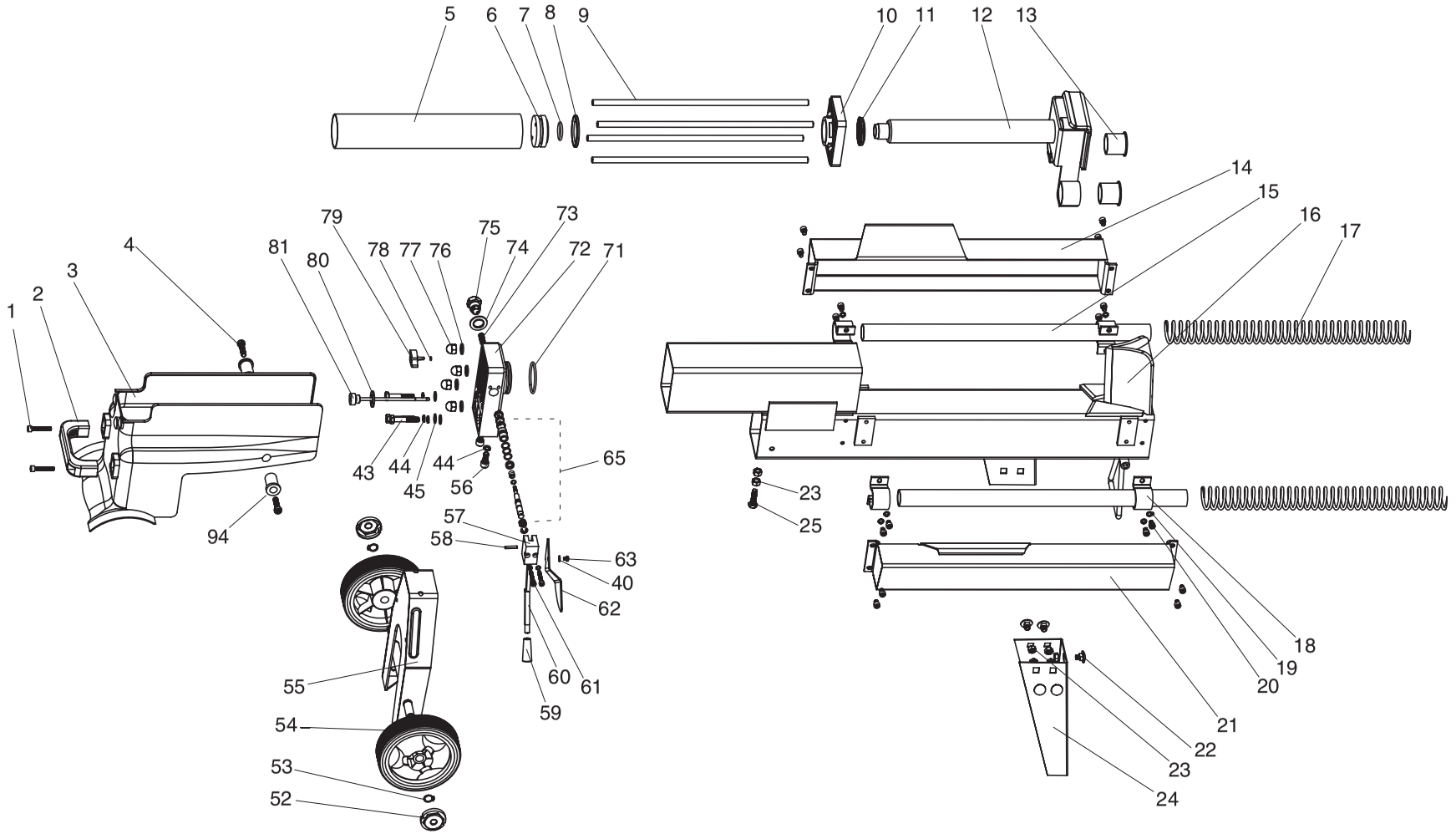
Before servicing the hydraulic system always disconnect the motor from power, and depressurize the hydraulic system by moving the control lever back and fourth a few times. Ignoring this warning can lead to hydraulic fluid poisoning, which is a serious and potentially fatal injury.

NOTICE

This hydraulic schematic will help the you identify hydraulic system components. However, it is not intended to be a how-to repair guide. Seek assistance from a professional hydraulic technician whenever servicing or repairing the hydraulic system.



H8170 Parts Breakdown - Main Assembly

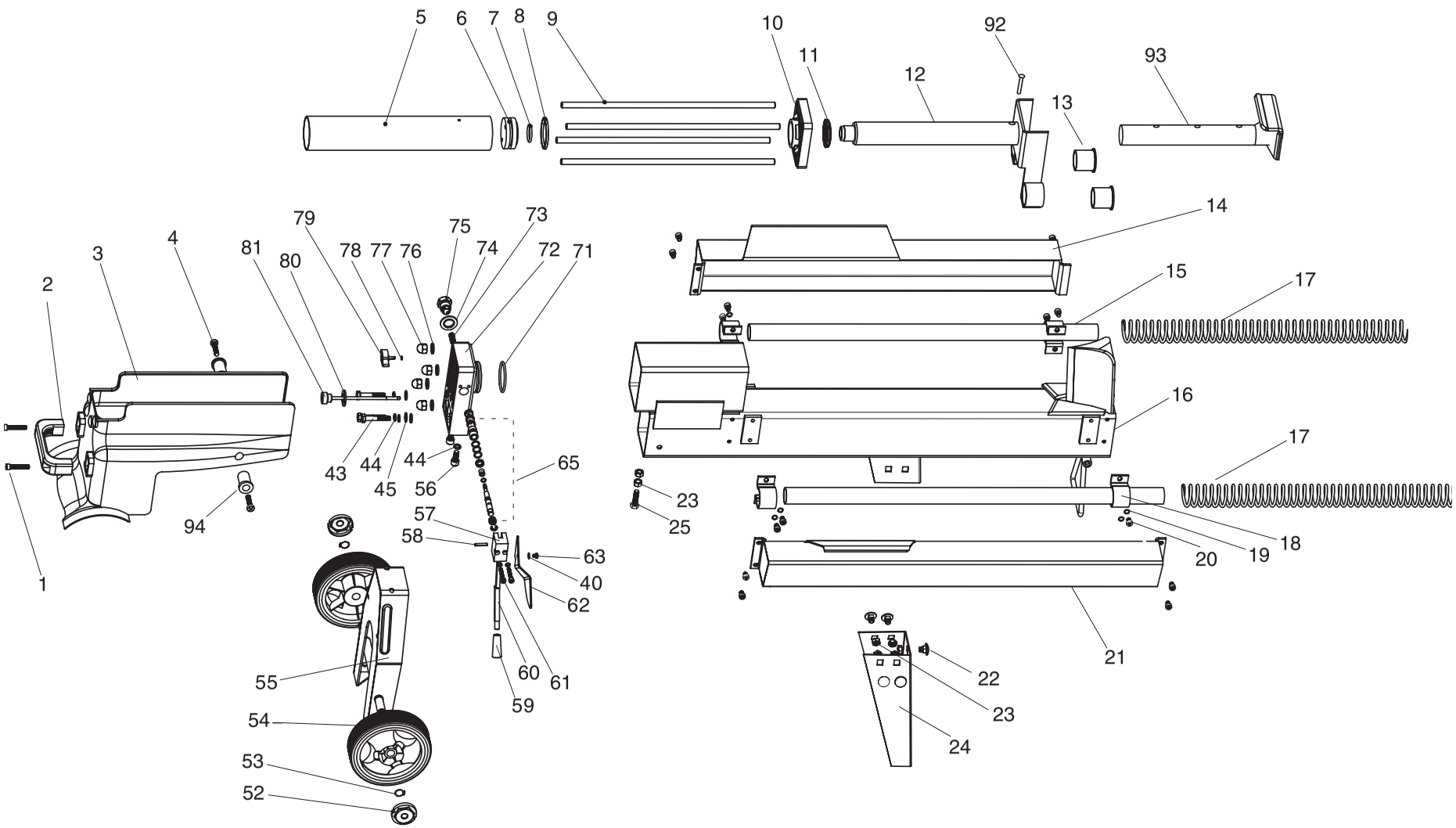


H8170 Parts List

REF	PART #	DESCRIPTION
1	PSB28M	CAP SCREW M6-1 X 15
2	PH8170002	REAR LIFTING HANDLE
3	PH8170003	PLASTIC HOOD
4	PSB14M	CAP SCREW M8-1.25 X 20
5	PH8170005	HYDRAULIC CYLINDER
6	PH8170006	PISTON
7	PH8170007	PISTON RING
8	PH8170008	PISTON SEAL
9	PH8170009	STUD
10	PH8170010	FRONT CYLINDER COVER
11	PH8170011	PISTON GASKET
12	PH8170012	PISTON ROD
13	PH8170013	NYLON SLEEVE
14	PH8170014	LEFT SPRING GUARD
15	PH8170015	SPRING ROD
16	PH8170016	BED ASSEMBLY
17	PH8170017	RETRACTING SPRING
18	PH8170018	SPRING HOOD BRACKET
19	PLW03M	LOCK WASHER 6MM
20	PSB04M	CAP SCREW M6-1 X 10
21	PH8170021	RIGHT SPRING GUARD
22	PCB02M	CARRIAGE BOLT M8-1.25 X 10
23	PN03M	HEX NUT M8-1.25
24	PH8170024	SUPPORT LEG
25	PB26M	HEX BOLT M8-1.25 X 30
26	PH8170026	COMPLETE GEAR PUMP ASSEMBLY
28	PH8170028	O-RING
36	PB93M	HEX BOLT M5-.8 X 30
37	PH8170037	SEAL
39	PLW01M	LOCK WASHER 5MM
40	PW02M	FLAT WASHER 5MM
41	PN06M	HEX NUT M5-.8
43	PB93M	HEX BOLT M5-.8 X 30
44	PLW04M	LOCK WASHER 8MM
45	PW01M	FLAT WASHER 8MM
46	PH8170046	SPRING

REF	PART #	DESCRIPTION
47	PH8170047	STEEL BALL
48	PH8170048	O-RING
49	PH8170049	SCREW
50	PH8170050	O-RING
51	PH8170051	DRAIN PLUG
52	PH8170052	WHEEL CAP
53	PR03M	EXT RETAINING RING 12MM
54	PH8170054	WHEEL
55	PH8170055	WHEEL AXLE FRAME
56	PB26M	HEX BOLT M8-1.25 X 30
57	PH8170057	REAR BRACKET
58	PH8170058	SHAFT
59	PH8170059	LEVER KNOB
60	PH8170060	HYDRAULIC LEVER
61	PH8170061	SPECIAL SCREW
62	PH8170062	HYDRAULIC LEVER GUARD
63	PH8170063	SPECIAL SCREW
65	PH8170065	VALVE CONTROL ASSEMBLY
71	PH8170071	RUBBER SEAL
72	PH8170072	ALUMINUM PLUG
73	PH8170073	SPRING
74	PH8170074	O-RING
75	PH8170075	SCREW PLUG
76	PH8170076	COPPER GASKET
77	PN18M	ACORN NUT M8-1.25
78	PH8170078	O-RING
79	PH8170079	BLEED SCREW
80	PH8170080	O-RING
81	PH8170081	DIPSTICK
82	PH8170082	1-3/4 HP SINGLE PHASE MOTOR
82-1	PH8170082-1	MOTOR FAN COVER
82-2	PH8170082-2	MOTOR FAN
82-3	PH8170082-3	START CAPACITOR 60MFD 3000VAC
82-4	PH8170082-4	PUSH BUTTON SWITCH
94	PH8170094	RUBBER SLEEVE

H8171 Parts Breakdown - Main Assembly



H8171 Parts List

REF	PART #	DESCRIPTION
1	PSB28M	CAP SCREW M6-1 X 15
2	PH8170002	REAR LIFTING HANDLE
3	PH8170003	PLASTIC HOOD
4	PSB14M	CAP SCREW M8-1.25 X 20
5	PH8170005	HYDRAULIC CYLINDER
6	PH8170006	PISTON
7	PH8170007	PISTON RING
8	PH8170008	PISTON SEAL
9	PH8170009	STUD
10	PH8170010	FRONT CYLINDER COVER
11	PH8170011	PISTON GASKET
12	PH8170012	PISTON ROD
13	PH8170013	NYLON SLEEVE
14	PH8171014	LEFT SPRING GUARD
15	PH8171015	SPRING ROD
16	PH8171016	BED ASSEMBLY
17	PH8171017	RETRACTING SPRING
18	PH8170018	SPRING HOOD BRACKET
19	PLW03M	LOCK WASHER 6MM
20	PSB04M	CAP SCREW M6-1 X 10
21	PH8170021	RIGHT SPRING GUARD
22	PCB02M	CARRIAGE BOLT M8-1.25 X 10
23	PN03M	HEX NUT M8-1.25
24	PH8170024	SUPPORT LEG
25	PB26M	HEX BOLT M8-1.25 X 30
26	PH8170026	COMPLETE GEAR PUMP ASSEMBLY
28	PH8170028	O-RING
36	PB93M	HEX BOLT M5-.8 X 30
37	PH8170037	SEAL
39	PLW01M	LOCK WASHER 5MM
40	PW02M	FLAT WASHER 5MM
41	PN06M	HEX NUT M5-.8
43	PB93M	HEX BOLT M5-.8 X 30
44	PLW04M	LOCK WASHER 8MM
45	PW01M	FLAT WASHER 8MM
46	PH8170046	SPRING
47	PH8170047	STEEL BALL

REF	PART #	DESCRIPTION
48	PH8170048	O-RING
49	PH8170049	SCREW
50	PH8170050	O-RING
51	PH8170051	DRAIN PLUG
52	PH8170052	WHEEL CAP
53	PR03M	EXT RETAINING RING 12MM
54	PH8170054	WHEEL
55	PH8170055	WHEEL AXLE FRAME
56	PB26M	HEX BOLT M8-1.25 X 30
57	PH8170057	REAR BRACKET
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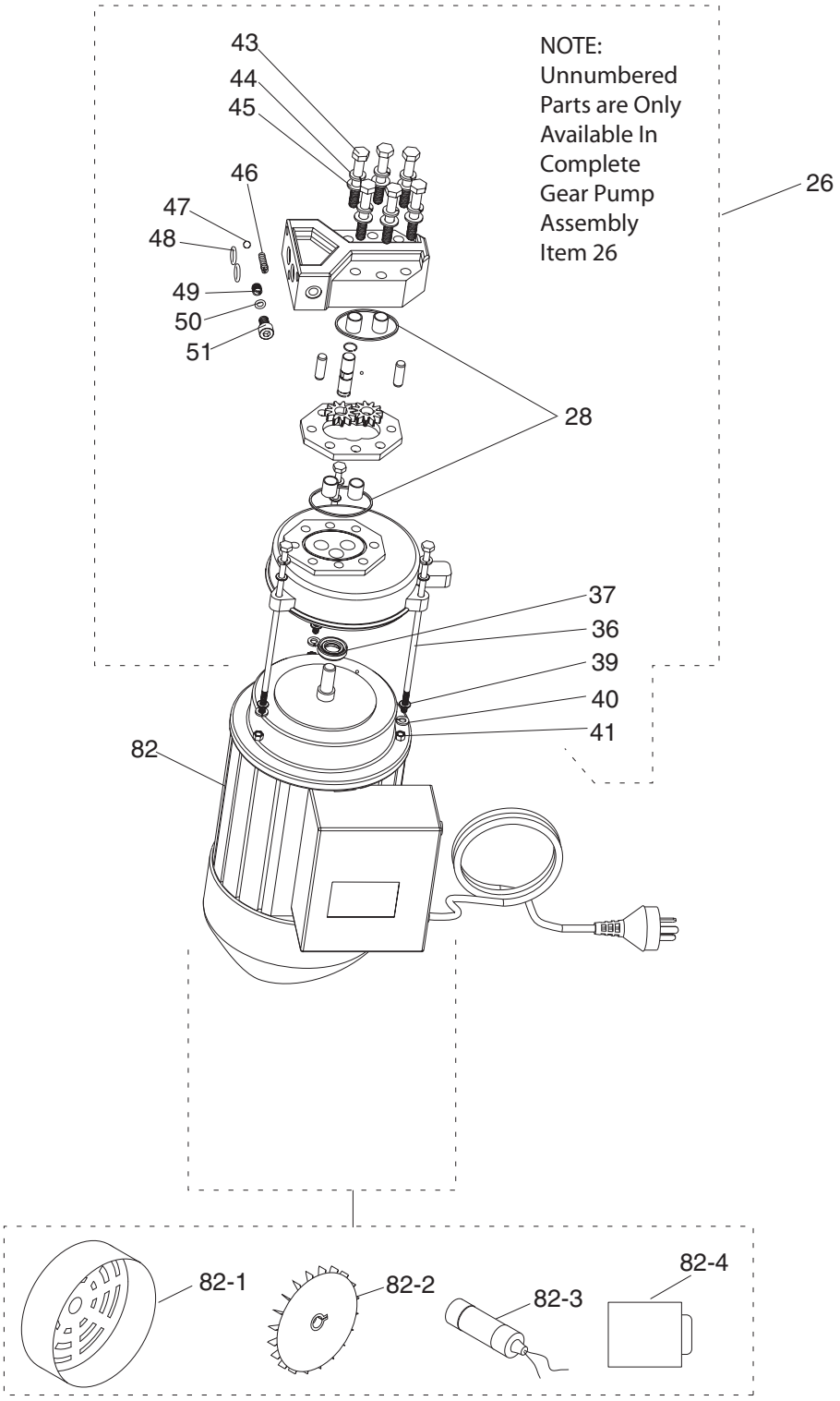
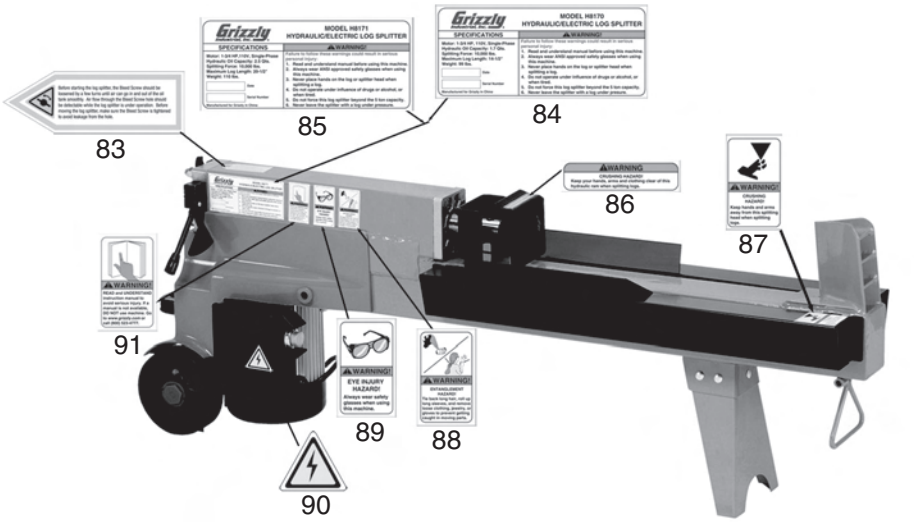
60	PH8170060	HYDRAULIC LEVER
61	PH8170061	SPECIAL SCREW
62	PH8170062	HYDRAULIC LEVER GUARD
63	PH8170063	SPECIAL SCREW
65	PH8170065	VALVE CONTROL ASSEMBLY
71	PH8170071	RUBBER SEAL
72	PH8170072	ALUMINUM PLUG
73	PH8170073	SPRING
74	PH8170074	O-RING
75	PH8170075	SCREW PLUG
76	PH8170076	COPPER GASKET
77	PN18M	ACORN NUT M8-1.25
78	PH8170078	O-RING
79	PH8170079	BLEED SCREW
80	PH8170080	O-RING
81	PH8170081	DIPSTICK
82	PH8170082	1-3/4 HP SINGLE PHASE MOTOR
82-1	PH8170082-1	MOTOR FAN COVER
82-2	PH8170082-2	MOTOR FAN
82-3	PH8170082-3	START CAPACITOR 60MFD 300VAC
82-4	PH8171082-4	PUSH BUTTON SWITCH
92	PH8171092	PIN
93	PH8171093	SLIDING PUSHER
94	PH8170094	RUBBER SLEEVE

H8170/H8171 Parts Breakdown
Motor Assembly



H8170/H8171 Safety Label Parts List



REF	PART #	DESCRIPTION
83	PH8170083	BLEEDER SCREW LABEL
84	PH8170084	MACHINE ID LABEL - H8170
85	PH8171085	MACHINE ID LABEL - H8171
86	PH8170086	CRUSHING HAZARD LABEL 1
87	PH8170087	CRUSHING HAZARD LABEL 2

REF	PART #	DESCRIPTION
88	PH8170088	ENTANGLEMENT LABEL
89	PH8170089	EYE PROTECTION LABEL
90	PLABEL-14	ELECTRICITY LABEL
91	PH8170091	READ MANUAL LABEL

⚠WARNING

Safety labels warn about machine hazards and ways to prevent injury. The owner of this machine MUST maintain the original location and readability of the labels on the machine. If any label is removed or becomes unreadable, REPLACE that label before using the machine again. Contact Grizzly at (800) 523-4777 or www.grizzly.com to order new labels.

WARRANTY AND RETURNS

Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser from the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly's sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Grizzly shall be tried in the State of Washington, County of Whatcom.

We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special, or consequential damages arising from the use of our products.

To take advantage of this warranty, contact us by mail or phone and give us all the details. We will then issue you a "Return Number,'' which must be clearly posted on the outside as well as the inside of the carton. We will not accept any item back without this number. Proof of purchase must accompany the merchandise.

The manufacturers reserve the right to change specifications at any time because they constantly strive to achieve better quality equipment. We make every effort to ensure that our products meet high quality and durability standards and we hope you never need to use this warranty.

Please feel free to write or call us if you have any questions about the machine or the manual.

Thank you again for your business and continued support. We hope to serve you again soon.

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The following information is given on a voluntary basis. It will be used for marketing purposes to help us develop better products and services. ***Of course, all information is strictly confidential.***

1. How did you learn about us?

____ Advertisement ____ Friend ____ Catalog
____ Card Deck ____ Website ____ Other:

2. Which of the following magazines do you subscribe to?

____ Cabinet Maker
____ Family Handyman
____ Hand Loader
____ Handy
____ Home Shop Machinist
____ Journal of Light Cont.
____ Live Steam
____ Model Airplane News
____ Modeltec
____ Old House Journal
____ Popular Mechanics
____ Popular Science
____ Popular Woodworking
____ Practical Homeowner
____ Precision Shooter
____ Projects in Metal
____ RC Modeler
____ Rifle
____ Shop Notes
____ Shotgun News
____ Today's Homeowner
____ Wood
____ Wooden Boat
____ Woodshop News
____ Woodsmith
____ Woodwork
____ Woodworker West
____ Woodworker's Journal
____ Other:

3. What is your annual household income?

____ $20,000-$29,000 ____ $30,000-$39,000 ____ $40,000-$49,000
____ $50,000-$59,000 ____ $60,000-$69,000 ____ $70,000+

4. What is your age group?

____ 20-29 ____ 30-39 ____ 40-49
____ 50-59 ____ 60-69 ____ 70+

5. How long have you been a woodworker/metalworker?

____ 0-2 Years ____ 2-8 Years ____ 8-20 Years ____ 20+ Years

6. How many of your machines or tools are Grizzly?

____ 0-2 ____ 3-5 ____ 6-9 ____ 10+

7. Do you think your machine represents a good value? _____ Yes _____ No

8. Would you recommend Grizzly Industrial to a friend? _____ Yes _____ No

9. Would you allow us to use your name as a reference for Grizzly customers in your area?
Note: *We never use names more than 3 times.* _____ Yes _____ No

10. Comments: _____

_____

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